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PTO/SB/50 (06-03)

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REISSUE PATENT APPLICATION TRANSMITTAL

| | | |
|--|--|-----------------|
| Address to: Mail Stop Reissue Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450 | Attorney Docket No. | Micron-P042RE |
| | First Named Inventor | Tianhong Zhang |
| | Original Patent Number | US 6,366,266 B1 |
| | Original Patent Issue Date (Month/Day/Year) | April 2, 2002 |
| | Express Mail Label No. | EV 318664088 US |

APPLICATION FOR REISSUE OF:

(Check applicable box)



Utility Patent



Design Patent



Plant Patent

APPLICATION ELEMENTS (37 CFR 1.173)

1. ☒ Fee Transmittal Form (PTO/SB/56)
(Submit an original, and a duplicate for fee processing)
2. ☐ Applicant claims small entity status. See 37 CFR 1.27.
3. ☒ Specification and Claims in double column copy of patent format
(amended, if appropriate)
4. ☒ Drawing(s) (proposed amendments, if appropriate)
5. ☐ Reissue Oath/Declaration (original or copy)
(37 C.F.R. 1.175) (PTO/SB/51 or 52)
6. ☐ Power of Attorney
7. ☒ Original U.S. Patent currently assigned? ☒ Yes ☐ No
(If Yes, check applicable box(es))
 - ☐ Written Consent of all Assignees (PTO/SB/53)
 - ☒ 37 C.F.R. 3.73(b) Statement (PTO/SB/96)
8. ☐ CD-ROM or CD-R in duplicate, Computer Program (Appendix)
or large table
9. Nucleotide and/or Amino Acid Sequence Submission
(if applicable, all of the following are necessary)
 - a. ☐ Computer Readable Form (CFR)
 - b. Specification Sequence Listing on:
 - i. ☐ CD-ROM (2 copies) or CD-R (2 copies); or
 - ii. ☐ paper
 - c. ☐ Statements verifying identity of above copies

ACCOMPANYING APPLICATION PARTS

10. ☒ Statement of status and support for all
changes to the claims. See 37 CFR 1.173(c).
11. ☒ Original Patent Grant
 - ☒ Ribbioned Original Patent Grant
 - ☐ Statement of Loss (PTO/SB/55)
12. ☐ Foreign Priority Claim (35 U.S.C. 119)
(if applicable)
13. ☒ Information Disclosure Statement (IDS)/PTO-1449 ☐ Copies of IDS
Citations
14. ☐ English Translation of Reissue Oath/Declaration
(if applicable)
15. ☒ Preliminary Amendment
16. ☒ Return Receipt Postcard (MPEP 503)
(Should be specifically itemized)
17. Other: _____

18. CORRESPONDENCE ADDRESS



Customer Number:




OR Correspondence address below

| | | | |
|-----------|-------------------------------|----------|--------------|
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| | | | |
|-------------------|----------------------|-----------------------------------|-------------------|
| Name (Print/Type) | Hugh R. Kress | Registration No. (Attorney/Agent) | 36,574 |
| Signature | <i>Hugh R. Kress</i> | Date | November 12, 2003 |

This collection of information is required by 37 CFR 1.173. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop Reissue, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

| REISSUE APPLICATION FEE TRANSMITTAL FORM | | | | | | | Docket Number (Optional) Micron-P042RE | |
|--|--------------------------------------|------------------|--|----------------------------|---|-----------|--|---------|
| Claims as Filed – Part 1 | | | | | | | | |
| Claims in Patent | Number Filed in Reissue Application | (3) Number Extra | Small Entity | | Other than a Small Entity | | | |
| | | | Rate | Fee | Rate | Fee | | |
| (A) 55 | Total Claims (37 CFR 1.16(j)) | (B) 55 | **** 35 = | x \$ ____ = | or | x \$ 18 = | 630 | |
| (C) 8 | Independent claims (37 CFR 1.16(i)) | (D) 8 | * 5 = | x \$ ____ = | | x \$ 86 = | 430 | |
| | | | | Basic Fee (37 CFR 1.16(h)) | | \$ ____ | | \$ 770 |
| | | | | Total Filing Fee | \$ ____ | | OR | \$ 1830 |
| Claims as Amended – Part 2 | | | | | | | | |
| | (1) Claims Remaining After Amendment | MINUS | (2) Highest Number Previously Paid For | (3) Extra Claims Present | Small Entity | | Other than a Small Entity | |
| | | | | | Rate | Fee | Rate | Fee |
| Total Claims (37 CFR 1.16(j)) | *** 63 | MINUS | ** 55 | * = 8 | x \$ ____ = | | x \$ 18 = | 144 |
| Independent Claims (37 CFR 1.16(i)) | *** 11 | MINUS | ***** 8 | = 3 | x \$ ____ = | | x \$ 86 = | 258 |
| | | | | | Total Additional Fee | \$ | OR | \$ 402 |
| <p>* If the entry in (D) is less than the entry in (C), Write "0" in column 3.</p> <p>** If the "Highest Number of Total Claims Previously Paid For" is less than 20, Write "20" in this space.</p> <p>*** After any cancellation of claims.</p> <p>**** If "A" is greater than 20, use (B – A); if "A" is 20 or less, use (B – 20).</p> <p>***** "Highest Number of Independent Claims Previously Paid For" or Number of Independent Claims in Patent (C).</p> <p><input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27.</p> <p><input type="checkbox"/> Please charge Deposit Account No. _____ in the amount of _____. A duplicate copy of this sheet is enclosed.</p> <p><input checked="" type="checkbox"/> The Director is hereby authorized to charge any additional fees under 37 CFR 1.16 or 1.17 which may be required, or credit any overpayment to Deposit Account No. <u>02-4345</u>. A duplicate copy of this sheet is enclosed.</p> <p><input checked="" type="checkbox"/> A check in the amount of \$ <u>\$2232.00</u> to cover the filing/additional fee is enclosed.</p> <p><input type="checkbox"/> Payment by credit card. Form PTO-2038 is attached.</p> | | | | | | | | |
| <p>WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.</p> | | | | | | | | |
| <p>November 12, 2003</p> <p>_____ Date</p> <p>36,574</p> <p>_____ Registration Number, if applicable</p> | | | | | <p></p> <p>_____ Signature of Applicant, Attorney or Agent of Record</p> <p>Hugh R. Kress</p> <p>_____ Typed or printed name</p> | | | |

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent No. 6,366,266

For: METHOD AND APPARATUS FOR
PROGRAMMABLE FIELD
EMISSION DISPLAY

Inventors: Tianhong Zhang and
Zhonghi Xia

Atty Dkt: Micron-P042RE

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Issued from Appln. Serial No:
09/388,671

Filed: September 2, 1999

Issued: April 2, 2002

Group Art Unit (anticipated): 2674

Prior Examiner: Duc Q. Dinh
703.306.5412

Mail Stop Reissue
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

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EXPRESS MAIL NO.: EV 318664088 US

Pursuant to 37 C.F.R. § 1.10, I hereby certify that I am personally depositing this paper or fee with the United States Postal Service "Express Mail Post Office to Addressee" service on the date indicated above in a sealed envelope (a) having the above-numbered Express Mail label and sufficient postage affixed, and (b) addressed to Mail Stop Reissue, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Date: 62-NOV-03 Signature

Hugh R. Kress

Printed Name Hugh R. Kress

REQUEST FOR FILING REISSUE APPLICATION

Sir:

Micron Technology, Inc. ("Assignee") hereby requests reissuance of the above-referenced patent ("the '266 patent) pursuant to 35 U.S.C. § 251 *et seq.*

Accompanying this Request are the following papers:

- (1) Copy of the '266 patent pursuant to 37 C.F.R. § 1.173(a)(1);
- (2) Preliminary Amendment,
- (3) Statement of Status and Support for all Changes to the Claims; and
- (4) Reissue Application Fee Transmittal Form (Form PTO/SB/56) and associated fee payment.

If the fee payment associated with this Request or the Preliminary Amendment referenced above is missing or incorrect in amount, or if any other fees are determined to be due in connection with these submissions, the Commissioner, Assistant

REQUEST FOR FILING REISSUE APPLICATION

Commissioner, and/or the Director of the U.S. Patent & Trademark Office is/are authorized to charge Browning Bushman Deposit Account No. 02-4345, referencing matter Micron-P042US.

The following documents will be submitted upon their execution by the inventors or Assignee, as appropriate.

- (1) Reissue Application Declaration by the Inventors (Form PTO/SB/51);
- (2) Reissue Application: Consent of Assignee (Form PTO/SB/53);
- (3) Statement Under 37 C.F.R. § 3.73(b) (Form PTO/SB/96);

Statement of Basis for Request

As noted in the attached Reissue Declaration by the Inventors (Form PTO/SB/51), the Assignee respectfully submits that the '266 patent is wholly or partially inoperative or invalid for at least two reasons:

(1) The '266 patent does not name the proper combination of inventors. Such an error has been held to provide the requisite basis for requesting reissuance. See, *Ex parte Scudder*, 169 U.S.P.Q. 814 (Bd. App. 1971).

(2) The '266 patent does not claim what the proper combination of inventors had the right to claim.

As set forth in the accompanying Reissue Application Declaration by Inventors (Form PTO/SB/51), the errors referred to above arose without any deceptive intention on the part of the applicants.

Date: 12 - NOV - 2003

Respectfully submitted,

Hugh R. Kress

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ATTORNEY FOR ASSIGNEE

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent No. 6,366,266

For: METHOD AND APPARATUS FOR
PROGRAMMABLE FIELD
EMISSION DISPLAY

Inventors: Tianhong Zhang and
Zhonghi Xia

Atty Dkt: Micron-P042RE

§ Issued from Appln. Serial No:
§ 09/388,671
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§ Filed: September 2, 1999
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§ Issued: April 2, 2002
§

§ Group Art Unit (anticipated): 2674
§

§ Prior Examiner: Duc Q. Dinh
§ 703.306.5412

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P.O. Box 1450
Alexandria, Virginia 22313-1450

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| Date: <u>12-NOV-03</u> | Signature: <u>Hugh R. Kress</u> |
| Printed Name: <u>Hugh R. Kress</u> | |

STATEMENT OF STATUS AND SUPPORT FOR CLAIMS
PURSUANT TO 37 C.F.R. § 1.73(c)

Sir:

This paper accompanies a Request for Filing Reissue Application ("Request for Reissue") associated with the patent identified above ("the '266 patent). If the fee payment associated with that Request or this Statement is missing or incorrect in amount, or if any other fees are determined to be due in connection with these submissions, the Commissioner, Assistant Commissioner, and/or the Director of the U.S. Patent & Trademark Office is/are authorized to charge Browning Bushman Deposit Account No. 02-4345, referencing matter Micron-P042US.

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STATEMENT OF STATUS AND SUPPORT FOR CHANGES TO CLAIMS
ACCOMPANYING REQUEST FOR FILING REISSUE APPLICATIONStatement of Status and Support for All Changes to Claims:

Claims 56-63 are added to the '266 patent in a Preliminary Amendment accompanying the Request for Reissue, such that claims 1-63 are pending in the Reissue Application. Pursuant to 37 C.F.R. § 1.173(c), the Assignee respectfully submits that the Specification of the '266 patent fully discloses and supports claims 56-63.

In support of this assertion, Assignee provides the following reproduction of claims 56-63, with annotations added identifying by reference numeral elements described in the Specification of the '266 patent. It is believed that the Specification taken as a whole serves to support the claimed subject matter.

56. (new) A field emission display device (*Abstract; Figure 18, reference numeral 10'; Specification, col. 8, line 24 through col. 9, line 8*) comprising:

- a photoelectric conversion device including a p-type substrate (12) defining an upper surface,
- an n-type doped region (14) formed in said p-type substrate at said upper surface of said p-type substrate,
- an n-type guard ring region (16) spaced from said n-type doped region and formed in said p-type substrate at said upper surface of said p-type substrate, and
- an electrically conductive metallic film (22) formed over said upper surface of said p-type substrate, wherein said p-type substrate and said metallic film are arranged to define a metal-semiconductor Schottky barrier (*Figure 18; Specification, col. 8, lines 56-60*);
- an electrically conductive grid structure (24);
- an electrically conductive anode structure (30); and
- an electron emitter (18) conductively coupled to said photoelectric conversion device, wherein said electron emitter and said grid structure are displaced

STATEMENT OF STATUS AND SUPPORT FOR CHANGES TO CLAIMS
ACCOMPANYING REQUEST FOR FILING REISSUE APPLICATION

from said anode structure across a field emission region (*Figure 18*), and wherein said field emission region is defined in a vacuum.

57. (new) A field emission display device as claimed in claim 56 wherein said electron emitter is formed over said n-type doped region of said upper surface of said p-type substrate (*Figure 18*).

58. (new) A field emission display device as claimed in claim 57 wherein said electron emitter is formed integrally with said n-type doped region of said upper surface of said p-type substrate (*Figure 12*).

59. (new) A field emission display device as claimed in claim 56 wherein said emitter comprises a tip defining an emission apex (*Figures 11-18*).

60. (new) A field emission display device as claimed in claim 56 wherein said emitter comprises a plurality of tips defining respective emission apexes (*Specification, col. 4, lines 41-47*).

61. (new) A field emission display device as claimed in claim 56 wherein said metallic film is formed over at least a portion of said n-type doped region of said upper surface of said p-type substrate and over at least a portion of said n-type guard ring region of said upper surface of said p-type substrate (*Figure 5, element 22*).

62. (new) A field emission display device (*Abstract; Figure 18, reference numeral 10'; Specification, col. 8, line 24 through col. 9, line 8*) comprising:

a photoelectric conversion device (*10; 10'*) including:

a p-type silicon substrate (*12*) defining an upper surface,

an n-type doped region (*14*) formed in said p-type silicon substrate at said upper surface of said p-type substrate,

an n-type guard ring region (*16*) spaced from and surrounding said n-type doped region and formed in said p-type silicon substrate at said upper surface of

STATEMENT OF STATUS AND SUPPORT FOR CHANGES TO CLAIMS
ACCOMPANYING REQUEST FOR FILING REISSUE APPLICATION

said p-type substrate (*Figure 18*), and
a platinum silicide metallic film (22) formed over said upper surface of said p-type substrate, wherein said p-type substrate and said metallic film are arranged to define a metal-semiconductor Schottky barrier, and wherein said metallic film extends over an interior circumferential portion of said guard ring region (*Figure 5*) and an exterior circumferential portion of said n-type doped region;
an electrically conductive grid structure (24);
an electrically conductive anode structure (30) including a phosphor screen (32);
and
a plurality of electron emitter tips (18) integrally formed with said n-type doped region and conductively coupled to said photoelectric conversion device via said platinum silicide metallic film (*Figure 7*), wherein said electron emitter tips and said grid structure are displaced from said anode structure across a field emission region, and wherein said field emission region is defined in a vacuum.

63. (new) A field emission display device (*Abstract; Figure 18, reference numeral 10'; Specification, col. 8, line 24 through col. 9, line 8*) comprising:

a photoelectric conversion device (10; 10') including
a p-type silicon substrate (12) defining an upper surface and a plurality of emitter tip profiles (18) including respective emission apexes,
an n-type guard ring region (16) spaced from and surrounding said plurality of emitter tip profiles and formed in said p-type silicon substrate at said upper surface of said p-type substrate, and
a platinum silicide metallic film (22) formed over said upper surface of said p-type substrate and said emitter tip profiles, wherein said p-type substrate and said metallic film are arranged to define a metal-semiconductor Schottky barrier, and wherein said metallic film extends over an interior

STATEMENT OF STATUS AND SUPPORT FOR CHANGES TO CLAIMS
ACCOMPANYING REQUEST FOR FILING REISSUE APPLICATION

circumferential portion of said guard ring region (*Figure 7*);
a silicon dioxide dielectric layer (26) formed over a portion of said metallic film spaced from said plurality of emitter tip profiles;
an electrically conductive grid structure (24) separated from said metallic film and said substrate by said dielectric layer and arranged to define a portion of an emitter tip void spaced from and surrounding said plurality of emitter tip profiles; and
an electrically conductive anode structure (30) including a phosphor coated screen (32), said anode structure being spaced from said grid structure and said plurality of electron emitter tip profiles to define a field emission region (*Figure 7*), wherein said field emission region is defined in a vacuum.

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STATEMENT OF STATUS AND SUPPORT FOR CHANGES TO CLAIMS
ACCOMPANYING REQUEST FOR FILING REISSUE APPLICATION

CONCLUSION

It is believed that each of the claims 56-63 added in this Reissue Application is fully supported by the Specification of the '266 patent, and that the application as a whole is in proper form and condition for reissuance of the '266 patent including claims 56-63.

Respectfully submitted,

Date: 12 - NOV - 2003

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